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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/900,423	07/06/2001	John E. Sell	NUFO005	4970

7590

10/24/2002

ROBERT C. HALL  
Bozicevic, Field and Francis LLP  
Suite 200  
200 Middlefield Road  
Menlo Park, CA 94025

EXAMINER

VY, HUNG T

ART UNIT

PAPER NUMBER

2828

DATE MAILED: 10/24/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/900,423

Applicant(s)

SELL ET AL.

Examiner

Hung T Vy

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.


- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 July 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-37 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

  
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**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)                      4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)                      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.                      6) ☐ Other: \_\_\_\_\_

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### DETAILED ACTION

1. In response to the communications dated 07/06/2001, claims 1- 37 are pending in this application.

### Acknowledges

2. Receipt is acknowledged of the following items from the Applicant.  
Information Disclosure Statement (IDS) filed on 02/25/2002 and made of record as Paper No. 2.

### Specification

3. The specification is objected to for the following reason:

On page 7,8,10,13,18 the application ser. Nos. are missing. Applicants <sup>are requested to</sup> provide the U.S. Patent Application Ser. Nos.

The specification has been checked to the extent necessary to determine the presence of possible minor errors. However, the applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

### Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 11-13, 22-33, and 35-37 are rejected under 35 U. S. C. § 102 (b) as being anticipated by Atkinson et al., U.S. patent No. 5,917,188.

Regarding claims 1-3 and 36-37, Atkinson et al. disclose a laser apparatus comprising an external cavity laser (see column 7, line 53-64), and a hermetically sealable container (400) (see column 10, line 25-35) configured to enclose external cavity laser in an inert atmosphere (See column 5, line 11-13). The apparatus, wherein said inert atmosphere is moisture controlled (see column 2, line 64-67) and external cavity laser is tunable (see column 3, line 48-60)

Regarding claim 11, and 35, it is inherent that the apparatus, further comprising a moisture trap position within said hermitically sealable container because Atkinson et al. disclose levels of moisture (See column 2, line 67).

Regarding claim 12-13, Atkinson et al. disclose the apparatus, wherein said inert atmosphere is a gas selected from nitrogen (See column 13, line 63) and comprising an optical fiber extending into said hermetically sealable container (see fig 9) and positioned to receive optical output from said external cavity, and a fiber feed through, configured to hermitically seal said optical fiber (See fig 9).

With respect to claims 22-32, the methods for fabricating a laser are considered as product by process steps.

### **Claim Rejections - 35 U.S.C. § 103**

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4-10, 14-19, 20-21 and 34 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Atkinson et al., U.S. patent No. 5,917,188 in view of Green et al., U.S. Patent Application No. U.S 2002/0126345.

Regarding claims 4 -10, 14-19, and 34, Atkinson et al. disclose the apparatus, wherein said external cavity laser in hermetically sealable container but Atkinson et al. do not disclose a gain medium, external cavity laser comprises a grid generator and a tuning assembly operatively coupled to said channel selector and configured to adjust said channel selector. However, Green et al. disclose a gain medium (224) having a first (226) and second output facets (228), second output facet (228) having anti-reflective coating thereon (see column 3, paragraph 0031), external cavity laser comprises a grid generator (226) and a tuning assembly operatively coupled to said channel selector (254) and configured to adjust said channel selector (see column 3, paragraph 0031 and fig 2).

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify to have medium with output facet, grid generator and channel selector because those skilled in the art will recognize that such modification and variations can be made to get high performance without departing from the spirit of the invention.

It would have been obvious to provide Atkinson et al. with the limitations as taught or suggested by green et al.

Regarding claims 20, it is inherent that the apparatus, further comprising a moisture trap position within said hermitically sealable container because Atkinson et al. disclose levels of moisture (See column 2, line 67).

Regarding claim 21, Atkinson et al. disclose the apparatus, wherein said inert atmosphere is a gas selected from nitrogen (See column 13, line 63)

### **Citation of Pertinent References**

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The patent to Ohishi disclose Optical Module and A Temperature Control Method Therefor, U.S. Patent No. 5,812,716.

The patent to Zorabedian discloses Continuously-Tunable External cavity Laser, U.S. Patent No. 6,108,355.

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The patent to Rossi et al. disclose Hight-Thernal-conductivity Sealed Package For Fiber Optic Coupling to An Optoelectronic Device, Patent No. 5,872,881.

The patent to Van Dijk discloses Lasers, U.S. Patent No.4, 847,854.

### **Conclusion**

7. When responding to the office action, Applicants are advised to provide the examiner with the line numbers and page numbers in the application and/or references cited to assist the examiner to locate the appropriate paragraphs.

A shortened statutory period for response to this action is set to expire 3 (three) months and 0 (zero) day from the day of this letter. Failure to respond within the period for response will cause the application to become abandoned (see M.P.E.P 710.02(b)).

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung VY whose telephone number is (703) 605-0759. The examiner can normally be reached on Monday-Friday 8:30 am - 5:30pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul IP can be reached on (703) 308-3098. The fax numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Hung T. Vy  
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October 19, 2002

  
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